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ROBERT C. KOWERT
MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.
P. O. BOX 398
AUSTIN, TX 78767-0398

EXAMINER	
CUNNINGHAM, GREGORY F	
ART UNIT	**PAPER NUMBER**
2676	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/970,082	SMITH, RANDALL B.	
	Examiner	Art Unit	
	Gregory F. Cunningham	2676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *9/29/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications of amendment received 8/11/2005.

2. The disposition of the claims is as follows: claims 1-44 are pending in the application. Claims 1 and 31 are independent claims.

3. When making claim amendments, the applicant is encouraged to consider the references in their entireties, including those portions that have not been cited by the examiner and their equivalents as they may most broadly and appropriately apply to any particular anticipated claim amendments.

Claim Rejections - 35 USC § 112

4. In view of applicant's amendment and remarks, 112 rejections are withdrawn.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 7, 12, 31, 35 and 38 are rejected under 35 U.S.C. 102(b) as being disclosed by Cunniff (US Patent 5,945,992).

A. Claim 1, "A method for rendering and displaying information using a computer graphics system, the method comprising [col. 2, lns. 1-3]:

receiving data corresponding to a plurality of objects to be rendered [col. 2, lns. 3-8], wherein the data includes a first data value and a second data value for each object [col. 2, lns. 9-11 at 'the position of each data object' and col. 6, lns. 10-11 at 'has a Position (in 3-D space)', wherein position as in 3-D space or even at least 2-D space whether real or virtual (screen space) employs at least two coordinate values (i.e. X, Y) and therefore 'position' implicitly corresponds to "a first data value and a second data value for each object" see also col. 4, lns. 21-22; col. 6, lns. 10-13 and col. 8, lns. 15-17];

using the first and second data values for each object to assign each object a first non-positional rendering attribute and a second non-positional rendering attribute [col. 2, lns. 11-22 at 'its bounding geometry' wherein 'its' implicitly means 'each data object' and the 'bounding geometry' is dependent upon the location 'its position' of the data object. While two data objects might have the same 'bounding geometries', their positions would render them distinct only unless they overlapped congruently then even still be based upon the position of each 'data object'. Furthermore 'its bounding geometry' and its opaque radius' implicitly conveys a boundary shape and size (i.e. 'radius' - circle, sphere, or a closed radius perimeter, etc. and radial size) Therefore 'its bounding geometry' and 'its opaque radius' (shape) at least corresponds to "first non-positional rendering attribute"; moreover 'its opaque radius' (radial size) at least corresponds to "second non-positional rendering attribute". If not 'its bounding geometry' (shape), then at least 'its opaque radius', whereby a radial shape – col. 2, ln. 11.];

using the first and second non-positional rendering attributes to select a third non-positional rendering attribute [col. 2, lns. 9-22 at 'In the data structure of the preferred embodiment of the invention, information is stored as to the position of each data object, its

bounding geometry, and its opaque radius. Using this information, various objects whose data has been sent to the client can be culled without rendering by determining whether they would be within the view cone of the observer, and by whether they would be obscured by objects in front of them.]

Additionally, 'its opaque radius' (shape and size) of "various objects whose data has been sent to the client can be culled without rendering by determining whether they would be within the view cone of the observer, and by whether they would be obscured by objects in front of them" determines a manifested "opaqueness" as corresponding to "using the first and second non-positional rendering attributes (circular or spherical shape and size) to select a third non-positional rendering attribute (opaqueness)".

and rendering a scene including at least a subset of the plurality of objects, wherein said rendering is performed according to the first, second, and third non-positional rendering attributes, and wherein the scene is displayable on a display device [col. 2, lns. 12-16 at 'In the data structure of the preferred embodiment of the invention, information is stored as to the position of each data object, its bounding geometry, and its opaque radius. Using this information, various objects whose data has been sent to the client can be culled without rendering by determining whether they would be within the view cone of the observer, and by whether they would be obscured by objects in front of them.' Whereby those objects or portions of objects that are not culled are rendered corresponds to "rendering a scene including at least a subset of the plurality of objects, wherein said rendering is performed according to the first (circular or spherical shape), second (radial size), and third (opaqueness) non-positional rendering attributes" is disclosed by Cunniff [as detailed].

B. Claim 2, "The method of claim 1, wherein the first non-positional rendering attribute is size" is disclosed supra for claim 1.

(Note: that when shape or size is arbitrarily associated with the first non-positional rendering attribute, then its counter part, size or shape, is associated with the second non-positional rendering attribute.)

C. Claim 3, "The method of claim 2, wherein the second non-positional rendering attribute is opacity" is disclosed supra for claim 2.

(Note: that when shape, size or opaqueness is arbitrarily associated with the second non-positional rendering attribute, then its counter part, opaqueness, shape or size, is associated with the third non-positional rendering attribute.)

D. Claim 4, "The method of claim 3, wherein the third non-positional rendering attribute is level of detail" is disclosed supra for claim 3 and col. 8, lns. 14-35.

E. Claim 7, "The method of claim 1, wherein the first non-positional rendering attribute is font size" is disclosed supra for claim 1 and furthermore in col. 3, lns. 18-20. Wherein first non-positional rendering attribute is data object's bounding geometry (size) and consequently applies to any/or all objects whether or not the object is a font. However, since objects are made up of graphics, which are, in turn, made up of primitives (such as lines, triangles, and polygons – col. 3, lns. 18-20) and the primitives are made up of lines, triangles, and polygons, (i.e. A, B, D, E, F, H, I, K, L, M, N, O, P, Q, R, T, V, W, X, Y, Z, 4, 7, 8 and 0), then these primitives made of lines, triangles, and polygons correspond to font size as exemplified.

F. Claim 12, "The method of claim 1, wherein the objects are virtual objects" is disclosed supra for claim 1. Wherein computer generated or rendered data objects correspond to "virtual objects".

G. Per independent claim 31, this is directed to a system for performing the method of independent claim 1, and therefore is rejected to independent claim 1.

(Examiner note: "wherein processor is configured to select" does not necessitate processor autonomy without user intervention.)

H. Per dependent claims 35 and 38, these are directed to a system, respectively, for performing the method of dependent claims 3 and 7, and therefore are rejected to dependent claims 3 and 7.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 5, 13, 14, 15, 34, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Robbins, (US 6,819,344 B2).

A. Claim 5, "The method of claim 1, wherein the first and second non-positional rendering attributes are each, one of the following: color saturation, drop shadow, animation" is disclosed supra for claim 1. However Cunniff does not appear to disclose "wherein the first and second

non-positional rendering attributes are each, one of the following: color saturation, drop shadow, animation", but Robbins does in col. 6, lns. 6-31. Wherein 'animation' corresponds to "wherein the first and second non-positional rendering attributes are each, one of the following: animation".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'semantic zooming using animation' disclosed by Robbins, and motivated to combine the teachings because it would 'dynamically control the appearance of the image' as revealed in col. 4, ln. 55.

B. Claim 13, "The method of claim 1, further comprising re-rendering a particular object in response to detecting that the corresponding first data value for the particular object has changed, wherein said re-rending includes updating the first non-positional attribute" is disclosed supra for claim 1.

However Cunniff does not appear to disclose "further comprising re-rendering a particular object in response to detecting that the corresponding first data value for the particular object has changed, wherein said re-rending includes updating the first non-positional attribute".

But Robbins does in col. 8, ln. 65 – col. 9, ln. 10 at 'By way of illustration, a virtual camera may move towards the helical path to show a selected section in greater detail. Another example is to decrease the focal length of the virtual camera while moving the focal point closer to the helical path. This change in perspective view transformation causes portions of the helical path closer to the user's viewpoint to progressively take up more of the viewing area while diminishing the display of regions that are less important to the user. Warping also may be

employed via the appropriate user selection to modify the width or other dimensions of the helical path for showing additional information. Another example would be to warp the image to provide a fish eye view for a selected section of the helical path.' Wherein 'change in perspective view transformation' or even 'warping, to modify the width or other dimensions' {i.e.: change in relative position (x, y, z)} corresponds to "detecting that the corresponding first data value for the particular object has changed" and 'causes portions of the helical path closer to the user's viewpoint to progressively take up more of the viewing area while diminishing the display of regions that are less important to the user' corresponds to "updating the first non-positional attribute" (size).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'semantic zooming using animation and change in perspective view' disclosed by Robbins, and motivated to combine the teachings because it would 'dynamically control the appearance of the image' as revealed in col. 4, ln. 55.

C. Claim 15, "The method of claim 1, further comprising zooming in on a particular object by reconfiguring one or more of the non-positional attributes" is disclosed supra for claim 1.

However Cunniff does not appear to disclose "further comprising zooming in on a particular object by reconfiguring one or more of the non-positional attributes".

But Robbins does in col. 6, lns. 15-20 at 'The semantic zooming component, for example, adapts the displayed information to the scale the associated visualization 36, such that a user can zoom in to examine details and individual values of data associated with a selected part of the

image.' Wherein 'scale' (size) and 'zoom in to examine details' (level of detail) correspond to first non-positional attribute and third non-positional attribute, respectively.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'semantic zooming using scale and to examine details' disclosed by Robbins, and motivated to combine the teachings because it would 'dynamically control the appearance of the image' as revealed in col. 4, ln. 55.

D. Per dependent claims 34 and 43, these are directed to a system, respectively, for performing the method of dependent claims 5 and 13, and therefore are rejected to dependent claims 5 and 13.

E. Claim 14, "The method of claim 13, wherein the detecting and re-rendering is performed in real-time" is disclosed by Cunniff and Robbins supra for claim 13. However, Cunniff and Robbins do not appear to disclose "wherein the detecting and re-rendering is performed in real-time". But Robertson does in col. 4, lns. 10-14 'Pad objects make themselves visible through two mechanisms: a graphic and a portal, which is a view into the single, infinite shared desktop, analogous to a magnification glass that can peer into and roam over different parts of the Pad surface, and thus portals are used for navigation in the workspace using a navigation technique called semantic zooming' and col. 18, lns. 63-65 at 'The Information Visualizer system is a real-time 3D graphics animation system providing plural, simulated 3D, navigable workspaces for user interaction.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity'

disclosed by Cunniff in combination with 'semantic zooming using animation and change in perspective view' disclosed by Robbins, coupled with real-time disclosed by Robertson, and motivated to combine the teachings because it would 'dynamically control the appearance of the image' as revealed in col. 4, ln. 55.

F. Per dependent claim 44, this is directed to a system for performing the method of dependent claim 14, and therefore is rejected to dependent claim 14.

9. Claims 6, 8, 37 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of van Dantzich et al., (PGPUB-DOCUMENT-NUMBER: 2002/0054117), hereinafter Dantzich.

A. Claim 6, "The method of claim l, wherein the first non-positional rendering attribute is an indicator of whether or not to render text for the object" is disclosed supra for claim 1. However Cunniff does not appear to disclose, "wherein the first non-positional rendering attribute is an indicator of whether or not to render text for the object", but Dantzich does in para. [0045] at "At 54, this can include drilling down for more detailed information regarding a respective notification that is associated with a display object. For example, this can include semantic zooming, wherein more detail is provided at each level of a user directed zooming operation (e.g., initiated by mouse, keyboard, audio commands and/or inputs providing indications of the user's visual patterns) until the full text or audio of the notification is rendered."

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'semantic zooming for rendering text' disclosed by Dantzich, and motivated to combine the teachings because it would allow other informational

properties of the items may also be included in the form of graphical and text features as revealed in para. [0007].

B. Claim 8, "The method of claim 1, wherein the first non-positional rendering attribute is sound volume" is disclosed supra for claim 1. However Cunniff does not appear to disclose, "wherein the first non-positional rendering attribute is sound volume", but Dantzich does in para. [0045] at 'this can include visual, audio, and/or physical renderings depicted at 52 that are associated with the notifications having priorities associated therewith. At 54, this can include drilling down for more detailed information regarding a respective notification that is associated with a display object. For example, this can include semantic zooming, wherein more detail is provided at each level of a user directed zooming operation (e.g., initiated by mouse, keyboard, audio commands and/or inputs providing indications of the user's visual patterns) until the full text or audio of the notification is rendered.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'semantic zooming for rendering audio (sound volume)' disclosed by Dantzich, and motivated to combine the teachings because it would allow other informational properties of the items may also be included as revealed in para. [0007].

C. Per dependent claims 37 and 39, these are directed to a system, respectively, for performing the method of dependent claims 6 and 8, and therefore are rejected to dependent claims 6 and 8.

10. Claims 9 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Sheasby et al., (PGPUB-DOCUMENT-NUMBER: 2002/0008704 A1), hereinafter Sheasby.

A. Claim 9, "The method of claim 1, wherein the first non-positional rendering attribute is blink rate" is disclosed supra for claim 1. However Cunniff does not appear to disclose, "wherein the first non-positional rendering attribute is blink rate", but Sheasby does in para. [0033] at "As shown in FIG. 6, the animator now has a timeline 610 with two triggering events. The first triggering event 620 invokes a "walk to" behavior. Triggering event 620 includes a parameter specifying the location that the character should walk to. It may also include attributes, such as the style with which the character should walk (run, walk, limp). The second triggering event 430 invokes a blink behavior, which may or may not have additional parameters such as blink speed."

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'blink speed' disclosed by Sheasby, and motivated to combine the teachings because it would cause the system to generate animation data that is representative of deterministic animation as revealed by Sheasby in abstract.

B. Per dependent claim 40, this is directed to a system for performing the method of dependent claim 9, and therefore is rejected to dependent claim 9.

11. Claims 10 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Pettigrew et al., (US 6,429,875 B1), herein after Pettigrew.

A. Claim 10, "The method of claim 1, wherein the first non-positional rendering attribute is background blending level" is disclosed supra for claim 1. However Cunniff does not appear to disclose, "wherein the first non-positional rendering attribute is background blending level", but Pettigrew does in col. 5, lns. 7-12 at "Thus, with such images, it is not actually possible to define a sharp transition between one object and its background and when using a mask to remove an object from a particular image frame, a soft multi-bit edge is required in order to provide the required level of blending when the object is combined with a new background image."

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'blending background' disclosed by Pettigrew, and motivated to combine the teachings because it would distinguish said object from the remaining background as revealed by Pettigrew in col. 3, lns. 46-50.

B. Per dependent claim 41, this is directed to a system for performing the method of dependent claim 10, and therefore is rejected to dependent claim 10.

12. Claims 11 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Official Notice.

A. Claim 11, "The method of claim 1, wherein the first non-positional rendering attribute is shimmer level" is disclosed supra for claim 1. However Cunniff does not appear to disclose,

"wherein the first non-positional rendering attribute is shimmer level", but Official notice is taken that the art is replete with "non-positional rendering attribute is shimmer level".

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'shimmering' disclosed by Official Notice, and motivated to combine the teachings because it just associate shimmering to a particular location.

B. Per dependent claim 42, this is directed to a system for performing the method of dependent claim 10, and therefore is rejected to dependent claim 10.

13. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Crotty et al., (PGPUB-DOCUMENT-NUMBER: 20020050995), hereinafter Crotty.

A. Claim 32, "The computer system of claim 31, wherein one of the one or more auxiliary rendering attributes is color saturation" is disclosed supra for claim 1. However Cunniff does not appear to disclose "wherein one of the one or more auxiliary rendering attributes is color saturation", but Crotty does in para. [0032] at 'Visual attributes may include, for example, color, hue, brightness, and saturation.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'saturation' disclosed by Crotty, and motivated to combine the teachings because it would 'permit visualization of large sets of data' as revealed by Crotty in para. [0006].

14. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Buchner et al., (US 5471572 A), hereinafter Buchner.

A. Claim 33, "The computer system of claim 31, wherein one of the one or more auxiliary rendering attributes is a drop shadow" is disclosed supra for claim 1. However Cunniff does not appear to disclose, "wherein one of the one or more auxiliary rendering attributes is a drop shadow", but Buchner does in col. 1, lns. 27-32 at 'Each polygon may contribute to one or more pixels of the final image (a pixel is a picture element of a display means), wherein each of the pixels may have a unique color based on such attributes as intrinsic color, lighting (specular highlights, shading, shadows, etc.)'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'saturation' disclosed by Buchner, and motivated to combine the teachings because it would 'permit visualization of large sets of data' as revealed by Crotty in para. [0006].

15. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Berend et al., (US 5598182 A), hereinafter Berend.

A. Claim 36, "The computer system of claim 31, wherein one of the one or more auxiliary rendering attributes is transparency" is disclosed supra for claim 1. However Cunniff does not appear to disclose, "wherein one of the one or more auxiliary rendering attributes is

transparency", but Berend does in col. 3, lns. 23-25 at 'The attribute data may define the colour and transparency of an object, each of which is variable across a sectional line.'

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply 'rendering level of detail based on position, size, and/or opacity' disclosed by Cunniff in combination with 'transparency' disclosed by Berend, and motivated to combine the teachings because it would 'generating visible output images, including visually distinct objects' as revealed by Berend in col. 3, 36-37.

16. Claims 4, 7 and 38 are rejected under U.S.C. 102 (b) above and in the alternate here under 35 U.S.C. 103(a) as being unpatentable over Cunniff as applied to claim 1 above, and further in view of Official Notice.

A. Claim 4, "The method of claim 3, wherein the third non-positional rendering attribute is level of detail" is disclosed supra for claim 3 and Official notice is taken that the art is replete with using first and second non-positional rendering attributes to select a third non-positional rendering attribute level of detail.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply non-positional rendering attributes disclosed by Cunniff in combination with level of detail disclosed by Official Notice, and motivated to combine the teachings because it would provide greater realism that is well known in the Art for level of detail.

B. Claim 7, "The method of claim 1, wherein the first non-positional rendering attribute is font size" is disclosed supra for claim 1 and Official notice is taken that the art is replete with non-positional rendering attribute of font size.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply non-positional rendering attributes disclosed by Cunniff in combination with font size disclosed by Official Notice, and motivated to combine the teachings because it would provide better readability that is well known in the Art for font size.

Response to Arguments

17. Applicant's arguments filed 8/11/2005 have been fully considered but they are not persuasive.

In response to applicant's argument for claim 1 that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that Cunniff mentions no **relationship** whatsoever between an object's position and its bounding geometry) are not specifically recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

However, just as there is an implied relationship of association between "a first data value and a second data value for each object" and "a first non-positional rendering attribute and a second non-positional rendering attribute", there exist the same association in Cunniff with respect to "the position of each data object" and "its bounding geometry, and its opaque radius".

While claim 1 "uses the first and second data values for each object to assign each object a first non-positional rendering attribute and a second non-positional rendering attribute", Cunniff basically assigns "the position of each data object, its bounding geometry, and its opaque radius" to a data structure where this information is stored. The inherent relationship between

"the position of each data object" and "its bounding geometry" and "its opaque radius" is thus one of association. That is "its bounding geometry" and "its opaque radius" is identified with "the position of each data object" via "its". Since the association is broadly disclosed as "its" the relationship tends to be more of an assignment (identified with) rather than one of equivalence (substituted for).

While the preceding assumed that the "position of each data object" corresponds to "a first data value and a second data value for each object", this was made evident in rejection, supra for claim 1. Whereby "position of each data object" comprises at least an "x" and "y" and "z" (for 3-D, see Cunniff col. 1, lns. 48-51) positional data values which correspond to "a first data value and a second data value for each object".

While Cunniff also pertains to, in part, "various objects whose data has been sent to the client can be culled without rendering by determining whether they would be within the view cone of the observer, and by whether they would be obscured by objects in front of them." Inevitably, also provides for rendering those portions of objects that are outside the view cone of the observer and not obscured by objects in front of them, which corresponds to a rendering attribute for each of those objects.

Furthermore "its bounding geometry, and its opaque radius" brings together bounding geometry and radius, thereby presenting the concept of an object with a circular or spherical shape with a radius, (i.e. object shape and size), which correspond respectively to "a first non-positional rendering attribute and a second non-positional rendering attribute".

Moreover "using this information, "its opaque radius", various objects whose data has been sent to the client can be culled without rendering by determining whether they would be

within the view cone of the observer, and by whether they would be obscured by objects in front of them" manifests "its opaqueness" as corresponding to "using the first and second non-positional rendering attributes (circular or spherical shape and size) to select a third non-positional rendering attribute (opaqueness)".

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the claim avoids such references or objections.

Responses

18. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Inquiries

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The Central FAX Number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory F. Cunningham
Examiner
Art Unit 2676

gfc

10/27/2005

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600